IN THE CLAIMS:

1. (Canceled)

2. (Currently Amended) An athermal arrayed-waveguide grating according to claim 3~~1~~, wherein the first layer connected to the input waveguide comprises a predetermined refractive index that is different from the input waveguide.

3. (Previously Presented) ~~An athermal arrayed-waveguide grating according to claim 1~~An athermal arrayed-waveguide grating comprising:

an input waveguide for inputting two or more optical signals;

a grating array for separating the input optical signals into different light wavelengths;

a first slab having a first layer and a second layer with different refractive indices from each other, said first layer being disposed for coupling the input waveguide to said second layer, said second layer being disposed for coupling said first layer to the grating array;

a second slab for causing the different light wavelengths separated at the grating array to be imaged on an egress surface thereof; and,

an output-waveguide array for outputting each light wavelength imaged on the

egress surface of the second slab in a form of a separated channel, wherein the second layer is interposed between the first layer and the grating array and comprises a refractive index that is equal to that of the input waveguide.

4. (Original) An athermal arrayed-waveguide grating according to claim 2, wherein the first layer is formed by material having a refractive index of 1.415.

5. (Original) An athermal arrayed-waveguide grating according to claim 2, wherein the second layer is formed by material having a refractive index of 1.46.

6. (Original) An athermal arrayed-waveguide grating according to claim 2, wherein the first layer of the first slab has a length of 21.07 μm in a direction in which the optical signal travels.

7. (Canceled)

8. (Previously Presented) ~~An optical-waveguide device of claim 7~~An optical-waveguide device for guiding an optical signal comprising:

a substrate;

an input waveguide extending at least partially across the substrate, a grating array for separating the optical signals into different light wavelengths;

a first slab having a first layer and a second layer that are disposed in series between the input waveguide and the grating array so that the layers collectively couple the input waveguide to the grating array; and,

a second slab for coupling the different light wavelengths separated by the grating array to an output waveguide, where the refractive index of the first layer and the second layer is substantially different, wherein the refractive index of the second layer is the same as the input waveguide.

9. (Currently Amended) An optical-waveguide device of claim 8~~7~~, wherein the input and output waveguides extend at least partially across the substrate.

10. (Currently Amended) An optical-waveguide device of claim 8~~7~~, wherein the grating array extend at least partially across the substrate.

11. (Currently Amended) An optical-waveguide device of claim 8~~7~~, wherein the first layer is formed by material having a refractive index of 1.415.

12. (Currently Amended) An optical-waveguide device of claim ~~8~~7, wherein the second layer is formed by material having a refractive index of 1.46.

13. (Currently Amended) An optical-waveguide device of claim ~~8~~7, wherein the first layer of the first slab has a length of 21.07 μm in a direction in which the optical signal travels.

14. (Canceled)

15. (Currently Amended) The method of claim 1~~6~~4, further comprising the step of forming an output waveguide extending at one end of the second slab and extending at least partially across the substrate.

16. (Currently Amended) ~~The method of claim 14~~A method of manufacturing an optical-waveguide device for guiding an optical signal, the method comprising steps of:

forming an input waveguide extending at least partially across the substrate;

forming a first slab having a first layer and a second layer extending at one end of the input waveguide, both layers having respective first and second ends, the first end of the first layer being disposed to join said one end of the input waveguide, the second end

of the first layer being disposed to join the first end of the second layer, the first layer having a first refractive index value and the second layer having a second refractive index value;

forming a grating array disposed to join the second end of the second layer and extending at least partially across the substrate; and,

forming a second slab extending at one end of the grating array and extending at least partially across the substrate, wherein the refractive index of the second layer is formed ~~by~~of a material with the same refractive index of the input waveguide.

17. (Currently Amended) The method of claim 16~~4~~, wherein the first layer is formed by material having a refractive index of 1.415.

18. (Currently Amended) The method of claim 16~~4~~, wherein the second layer is formed by material having a refractive index of 1.46.

19. (Currently Amended) The method of claim 16~~4~~, the first layer of the first slab has a length of 21.07 μm in a direction in which the optical signal travels.

20. (Currently Amended) The device of claim 8~~7~~, wherein said second layer is disposed for coupling the grating array to said first layer, said first layer being disposed

for coupling the input waveguide to said second layer.